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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,361	11/06/2003	Melissa Lee Merlau	A01462	8529
21898	7590	11/16/2005	EXAMINER	
ROHM AND HAAS COMPANY PATENT DEPARTMENT 100 INDEPENDENCE MALL WEST PHILADELPHIA, PA 19106-2399			VANIK, DAVID L	
			ART UNIT	PAPER NUMBER
			1615	

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/702,361

Applicant(s)

MERLAU ET AL.

Examiner

David L. Vanik

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) 8 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

Receipt is acknowledged of the Applicants' Remarks filed on 9/20/2005.

The 35 USC §102 rejection over US Patent 6,136,884 ('884) is hereby **maintained**.

**MAINTAINED REJECTIONS:**

The following is a list of maintained rejections:

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6,136,884 ('884).

'884 disclose a latex composition for hair care (abstract). Said composition comprises a hybrid graft copolymer further comprising at least two distinct polymers (column 2, lines 38-43 and Claims 1-19). Specifically, the two distinct polymers used in the invention advanced by '884 can be a (1) sulfopolyester copolymer and a (2) acid-

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functional polymer (Claims 1 and 17). Like the instant application, the polymer system advanced by '884 comprises homopolymer and copolymers derived from polyesters (column 4, lines 7-8), ethylenically unsaturated monomers (column 4, lines 44-65), and acid functionalized monomers, such as methacrylic acid (column 4, lines 16-43). The glass transition temperature ( $T_g$ ) of the two polymers can also be different: (1) the  $T_g$  of the sulfopolyester group can be between about 15 to about 60° C, and (2) the  $T_g$  of the acid-functional polymer can be between about 40 to about 80° C (Claims 8 and 19, column 3, lines 43-44, and column 7, lines 12-20). Thus, like the instant application, the difference in  $T_g$  between the first polymer, an acid-functional polymer, and the second polymer, a sulfopolyester copolymer, can be 20° C or more.

The polymer system advanced by '884 can be dissolved together in a cosmetically acceptable solvent (column 8, lines 33-64). The hair care formulation can also be fashioned into a film (column 8, lines 14-32). It is the examiner's position that, inherently, when fashioned into a film, the composition advanced by '884 has a tensile storage modulus at 20° C of from about  $1 \times 10^{10}$  Pascal to  $1 \times 10^8$  Pascal and a storage modulus at 70° C of from about  $1 \times 10^9$  Pascal to  $1 \times 10^6$  Pascal. Since the essential elements of the '884 composition are identical to the instant compositions (that is, a composition comprising two polymers with different  $T_g$  values and a cosmetically acceptable solvent wherein the first polymer has a  $T_g$  between about 30 to about 250° C and the second polymer has a  $T_g$  between about 20 to about 35° C), the composition would inherently have the same physiochemical properties as the compositions set forth

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in the instant application. As such, it is the examiner's position that the composition advanced by '884 anticipates the compositions enumerated in the instant claim set.

The claims are therefore anticipated by US Patent 6,136,884 ('884).

### ***Response to Arguments***

Applicant's arguments filed on 9/20/2005 have been fully considered but they are not persuasive. In response to the 6/21/2005 Non-Final Rejection, Applicant has asserted that the '884 patent discloses a hybrid graft copolymer comprising at least two polymer segments as compared to teaching a mixture of distinct polymers. Additionally, it is Applicants' assertion that there is no teaching in '884 of the glass transition temperatures of polymer segments. The examiner respectfully disagrees with this assertion.

Giving the instant claim set the broadest reasonable interpretation, it is the examiner's position that the phrases a "first polymer or polymer mixture" and "a second polymer or polymer mixture" encompass graft copolymers comprising distinct polymer segments. The "first" segment of the graft copolymer is fused with the "second" segment, resulting in a graft copolymer comprising a "mixture" of two distinct polymer segments. As set forth in '884, the glass transition temperature (T<sub>g</sub>) of the two polymers can also be different: (1) the T<sub>g</sub> of the sulfopolyester group can be between about 15 to about 60° C, and (2) the T<sub>g</sub> of the acid-functional polymer can be between about 40 to about 80° C (Claims 8 and 19, column 3, lines 43-44, and column 7, lines

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12-20). Thus, like the instant application, the difference in Tg between the first polymer, an acid-functional polymer, and the second polymer, a sulfopolyester copolymer, can be 20° C or more.

In conclusion, by disclosing a hybrid-graft polymer comprising a mixture of two distinct polymer segments wherein the difference in Tg between the first and second segments can be 20° C or more, it is the examiner's position that the instant claims are anticipated by US Patent 6,136,884 ('884).

#### **NEW REJECTIONS:**

The following is a list of new rejections:

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by English-translated WO 99/63955 ('955).

'955 disclose compositions comprising at least one "tacky" polymer and at least one "setting" polymer (Title and page 4, paragraph 1). According to '955, the tacky polymer has a Tg of less than 20° C whereas the setting polymer has a Tg of greater

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than 15° C (page 5, paragraph 4). The distinct first and second polymers can be chosen from a wide-range of polymers, including sulfonic polyesters and polyurethanes (See generally pages 6-13 and specifically page 6, paragraphs 6-7 and page 9, paragraph 7). Specific first and second polymer mixtures can comprise AQ1350, having a Tg equal to 0° C, and Uramul SC 132, having a Tg equal to 50° C (page 7, paragraph 9; page 10, paragraph 10; and Example 2). When AQ1350 and Uramul SC 132 are used together in a composition (Example 2), the difference in Tg between the first and second polymers is equal to 50° C. It should be noted that water and alcohol can be considered cosmetically acceptable solvents (See Compositions 1-8).

It is the examiner's position that, inherently, when fashioned into a film, the composition advanced by '955 has a tensile storage modulus at 20° C of from about  $1 \times 10^{10}$  Pascal to  $1 \times 10^8$  Pascal and a storage modulus at 70° C of from about  $1 \times 10^9$  Pascal to  $1 \times 10^6$  Pascal. Since the essential elements of the '955 composition are identical to the instant compositions (that is, a composition comprising two polymers with different Tg values and a cosmetically acceptable solvent wherein the first polymer has a Tg between about 30 to about 250° C and the second polymer has a Tg between about minus 20 to about 35° C), the composition would inherently have the same physiochemical properties as the compositions set forth in the instant application. As such, it is the examiner's position that the composition advanced by '955 anticipates the compositions enumerated in the instant claim set.

The claims are therefore anticipated by English-translated WO 99/63955 ('955).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David L. Vanik whose telephone number is (571) 272-3104. The examiner can normally be reached on Monday-Friday 8:30 AM - 5:00 PM.


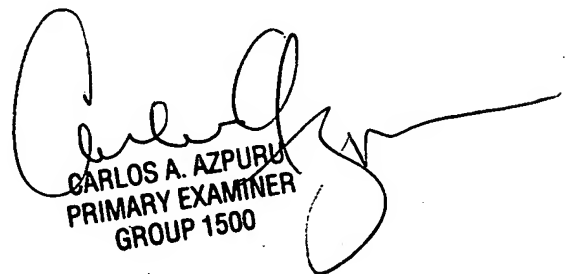
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carlos Azpuru, can be reached at (571) 272-0588. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David Vanik, Ph.D.  
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11/11/2005  
CARLOS A. AZPURU  
PRIMARY EXAMINER  
GROUP 1500